## MICRO DECISION COMPUTER

### Standard Hardware:
64K bytes of RAM □ 280A CPU at 4 MHz □ Two RS232C Serial Ports □ Floppy disk controller can control up to four 5½" soft sectored drives □ Switching power supply □ Dimensions: 18.7" wide, 5.3" high, and 11.3" deep □ Weight: MD1 14 lb. 3 oz, MD2 18 lbs., MD3 14 lbs.

### Standard Software:
□ CP/M 2.2 Operating System □ Microsoft BASIC 80 □ BaZic (compatible with NorthStar BASIC) □ WordStar word processor □ LogiCalc spreadsheet □ Correct-It spelling checker.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD1</td>
<td>Includes Standard Hardware &amp; Software, and ONE SINGLE SIDED 5½&quot; floppy disk drive with 40 tracks per side, 200K bytes formatted total.</td>
<td>$1195</td>
</tr>
<tr>
<td>MD2</td>
<td>Includes Standard Hardware &amp; Software, and TWO SINGLE SIDED 5½&quot; floppy disk drives with 40 tracks per side, 400K bytes formatted total.</td>
<td>$1545</td>
</tr>
<tr>
<td>MD3</td>
<td>Includes Standard Hardware &amp; Software, plus Personal Pearl data base manager, and TWO DOUBLE SIDED 5½&quot; floppy disk drives with 40 tracks per side, 768K bytes formatted total. (Note: MD3 available February 15, 1983)</td>
<td>$1695</td>
</tr>
</tbody>
</table>

220V 50Hz Micro Decisions are available. Add letter “E” to part number, e.g. MD3 E

### OPTIONAL TERMINAL (sold only with computer system)

#### Terminal Specifications:
□ 12" P-31 green phosphor non-glare screen □ 80 characters X 24 lines with 25th status line □ Detachable keyboard with 92 keys including 14 key numeric keypad and 7 function keys □ Insert/delete/erase functions □ Reverse video, dim, blink and underline attributes □ Protected fields displayed in dual intensity □ Dimensions: 16.5" wide, 21.3" deep (including keyboard), 12.2" high □ Weight: 24.2 lbs.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDT20</td>
<td>Beige</td>
<td>$595</td>
</tr>
<tr>
<td>MDT50</td>
<td>Black</td>
<td>$595</td>
</tr>
</tbody>
</table>

Choice of terminal subject to availability

220V 50Hz Terminals are available. Add letter “E” to part number, e.g. MDT50 E

Prices and specifications subject to change without notice.

□ CP/M is a registered trademark of Digital Research □ Microsoft is a registered trademark of the Microsoft Corp □ WordStar is a registered trademark of Micropro □ LogiCalc is a registered trademark of Software Products International □ BaZic is a registered trademark of MicroMikes □ Personal Pearl is a registered trademark of Relational Systems International □ Correct-It, Micronix Operating System, Decision 1, & Micro Decision are Trade Marks of Morrow Designs

DECEMBER 1, 1982
DECISION 1 COMPUTER

Standard Hardware:
S-100 (IEEE 696) 14-slot motherboard  □ 280 CPU  □ Real time CMOS clock/calendar chip and programmable interrupt controller □ Three RS232C serial ports and one parallel daisy printer port □ 64K high speed static RAM (expandable up to 1 megabyte) □ Dimensions: 19" wide, 20.5" deep, and 8.5" high □ Weight: 36 lbs.

Standard Software:
CP/M 2.2 operating system  □ Microsoft BASIC 80

<table>
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<tr>
<th>Model Number</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>Includes: standard hardware listed above</td>
<td>$2395</td>
</tr>
<tr>
<td>D2</td>
<td>Includes standard hardware and standard software listed above. Plus two 5½&quot; double sided 48 TPI floppy disks (800K bytes formatted) and a DMA floppy disk controller.</td>
<td>$3495</td>
</tr>
<tr>
<td>D2A</td>
<td>Includes standard hardware and standard software listed above. Plus one 5½&quot; single sided 48 TPI floppy disk (200K bytes formatted) with DMA floppy controller, and one 5 megabyte 5½&quot; hard disk with DMA hard disk controller</td>
<td>$3995</td>
</tr>
<tr>
<td>D3A</td>
<td>One 5 megabyte 5½&quot; hard disk</td>
<td>$4400</td>
</tr>
<tr>
<td>D3C</td>
<td>One 16 megabyte 5½&quot; hard disk</td>
<td>$5400</td>
</tr>
</tbody>
</table>

220V 50Hz. Decisions are available. Add letter "E" to part number, e.g. D3A E

OPTIONAL MULTI-USER UPGRADE KIT & SOFTWARE

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOS</td>
<td>Multi-user upgrade kit (for Decision 1 systems with a hard disk) including: three 64K high speed static RAM boards and the Micronix Operating System</td>
<td>$1995</td>
</tr>
<tr>
<td>MOS+</td>
<td>Upgrade kit with Whitesmith’s C &amp; Pascal</td>
<td>$2495</td>
</tr>
</tbody>
</table>

OPTIONAL TERMINAL (sold only with computer system)

Terminal Specifications:
□ 12” P-31 green phosphor non-glare screen □ 80 characters X 24 lines with 25th status line □ Detachable keyboard with 92 keys including 14 key numeric keypad and 7 function keys □ Insert/delete/erase functions □ Reverse video, dim, blink and underline attributes □ Protected fields displayed in dual intensity □ Dimensions: 16.5” wide, 21.3” deep (including keyboard), 12.5” high □ Weight: 24.2 lbs.

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<th>Model Number</th>
<th>Description</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>MDT20</td>
<td>Beige</td>
<td>$595</td>
</tr>
<tr>
<td>MDT50</td>
<td>Black</td>
<td>$595</td>
</tr>
</tbody>
</table>

Choice of terminal subject to availability

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DECEMBER 1, 1982

SALES OFFICE
600 McCormick Street □ San Leandro □ California □ 94577

(415) 430 1970
Our service goal is to turn-around any customer repair within an average of 30 days from date of receipt at our docks. For prompt handling you may request EXPEDITE SERVICE. For a $75.00 EXPEDITE fee shipment will be made UPS/Blue and a 2-5 day turn-around time is our service goal. The expedite fee is applicable to warranty and non-warranty repairs.

NOTES:

1. Customers are to request RETURN MATERIAL AUTHORIZATION numbers (RMA) prior to return of any material to Morrow Designs. This number will be used to track repairs through our operations. PLEASE include the RMA # on shipment paperwork and clearly lettered on the outside of the shipping cartons for ease of identification. Shipments received without RMA #'s will be delayed in processing.

2. Morrow Designs WILL NOT accept any shipments on our docks by dealers or end-users with collect delivery charges.

3. On items returned for credit, please include a copy of your original Morrow invoice or reference the invoice number on your paperwork.

4. Prices are subject to change without notice.

5. Fixed fee floppy repair prices exclude cost of parts that cost more than ten dollars ($10). Customers will be advised of excess replacement parts costs prior to completing work.

6. Modification on Morrow Design boards voids warranty and repairs will be accomplished on a Times and Material basis.
Micro Decision
Spare Parts Price List

The spare parts prices for the Micro Decision are noted below. Dealer computer discounts are applicable.

<table>
<thead>
<tr>
<th>Description</th>
<th>Retail Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central P.C.</td>
<td>$595</td>
</tr>
<tr>
<td>Power Supply</td>
<td>$225</td>
</tr>
<tr>
<td>Bare Drive</td>
<td>$325</td>
</tr>
<tr>
<td>Mounting Bracket</td>
<td>$35</td>
</tr>
<tr>
<td>Reset Switch</td>
<td>$15</td>
</tr>
<tr>
<td>Drive Cable</td>
<td>$25</td>
</tr>
<tr>
<td>LED with Cable</td>
<td>$25</td>
</tr>
<tr>
<td>LED</td>
<td>$10</td>
</tr>
</tbody>
</table>

Dealers may request repair parts on an exchange basis. To qualify for exchange, the dealer must get an RMA number from customer service and return the defective part. Upon receipt of the defective part a replacement carrying a 90 day warranty will be sent to the dealer at the standard fixed exchange rate for that item. Turn around time after receipt on our dock for the exchange program is 10 days. Modified or physically damaged parts cannot be exchanged.

<table>
<thead>
<tr>
<th>Description</th>
<th>Exchange Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central P.C.</td>
<td>$225.00</td>
</tr>
<tr>
<td>Power Supply</td>
<td>$85.00</td>
</tr>
<tr>
<td>Bare Drive</td>
<td>$150.00</td>
</tr>
</tbody>
</table>
## REPAIR PRICE LIST

### PERIPHERAL ITEM DESCRIPTION | PRICE
--- | ---
Floppy Repairs |  
200's | $100  
This basic service includes cleaning, alignment, testing, all minor repair and QA report. See notes.
800's | $145
850's | $145
--- | ---
M-5's | $375
--- | ---
M-10's & M-20's Drive Electronics Repair |  
CQBM / CQEM / CNMM PCB | $435
HPZM PCB | $195
--- | ---
Head Disk M-10 Assembly | $600
Head Disk M-20 Assembly | $700
--- | ---
Head Disk Assembly M-26 | $650
Drive Electronics M-26 | $225 *(Only if Morrow can repair by exchange, subject to stock on hand)*

### COMPUTER ITEM DESCRIPTION

| Item Description | Price |
--- | --- |
S-100 Card | $75
CP/M Software Re-make | $25
Micronix Software Re-make | $95
CP/M 2.2 | $250
CP/M Change 1.4 to 2.2 | $50
INSTALL 8" | $20
INSTALL (NORTHSTAR) | $50
Relocation Package (8C) | $30
EPROM (DJ2) | $20
PROM (8C) | $20
PAL (Multi-1/O) | $25
Micro Decision | $275
Micro Decision Power Supply | $75
Decision One Wunderbus | $235
Decision One Power Supply | $125
**Minimum Small Parts Order** | $50
NOTICE: To set up terminal

1) Turn terminal on. 2) Press SET UP key. 3) Enter the following code at bottom of screen. Press ← and → keys for direction. Press ↑ key to change status. Once all status boxes have been entered, press save.

\[
\begin{array}{cccccccc}
1 & 1 & 1 & 0 & 0 & \text{(Main port)} \\
& & Parity enable/disable \\
& & Parity even/odd \\
& & Data bit 8/7 \\
& & Stop bit 2/1 \\
2 & 0 & 1 & 0 & 0 & \text{(PROTECT TYPE)} \\
& & Blinking ON/OFF \\
& & underline ON/OFF \\
& & Dual intensity ON/OFF \\
& & Inverse video ON/OFF \\
3 & 0 & 0 & 1 & 1 & \text{(EMULATOR & CURSOR TYPE)} \\
& & 00: TECO (ADM3A) \\
& & 01: ADDS Regent 25 \\
& & 10: Hazeltine 1500 \\
& & 11: TECO (ADM3A) \\
& & Cursor underline/block \\
& & Cursor blinking/steady \\
4 & 0 & 1 & 1 & 0 & \text{ INVERSE ON/OFF} \\
& & Full/Half \\
& & EIA/Current loop \\
& & AUX port ON/OFF \\
\end{array}
\]